



HOW TO DRY KAKI

**a guide to
persimmons' drying**



Lengoa Veneta edisiòn

by Raffaele Serafini





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LENGOA VENETA EDISIÒN

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*With the hope that many will be able to
preserve the generous harvest of kaki trees*

Raffaele Serafini

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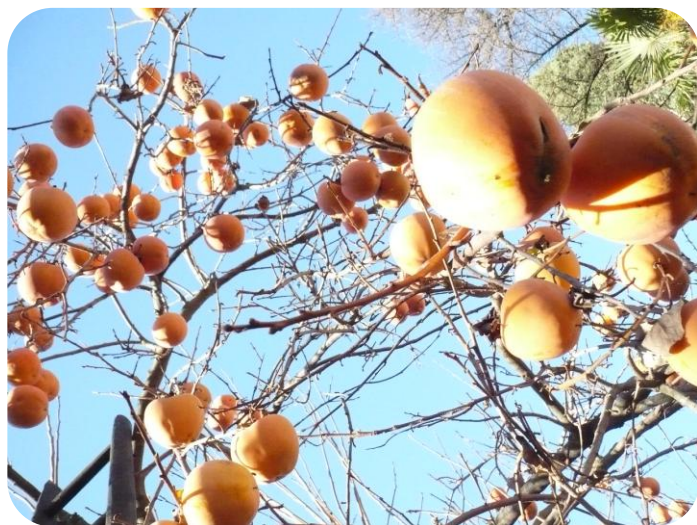


LENGOA VENETA

Edisiòn

PREFACE

When I was a kid, I remember that kaki trees were the inhabitants of every Venetian courtyard. In autumn the leafless trees were visible because of their abundant crop of orange fruits, like a prelude to the incoming colourful holidays of the winter's months. Not yet of age, I began to plant them, while around me everybody despised this tree because it remembered the only source of food that for decades signed the invasion of the Italian state and its infamous taxations against the Venetian People. In my several trips to Caucasus, I appreciated the techniques used to dry kaki fruits. Drying is the most efficient way to preserve the abundant quantity of fruits that every year the tree gives, in this way nothing goes lost. I decided to develop a technique to dry kakis so to maximize their sweetness and without using extra energy or any food additive. The book is a resume of more than 25 years experiments. My method can be used also for industrial production, but in such case kiln drying will be necessary so to guarantee uniformity on a big scale.



INTRODUCTION

This brief guide is mostly filled with picture in order to explain as easier as possible the different techniques to dry kaki. There are several factors determining the success of the operation of drying, we pray the reader to follow them scrupulously:

1) Pick up the fruit when it is still almost green or lightly orange in colour. The fruit should not be mature. Do not worry, the fruit will mature during the drying process. During drying it will become very sweet like honey.

2) Drying is about air, not necessarily warm air. In the artic, the Sami People, for centuries, have been drying fish exposed to cold winds. The circulation of air is very important for drying kakis. Grids or hanging keep the fruit exposed to air and will dry it.

3) The real problem about drying with warm air, is that, the warm temperature favours the maturation of the fruit making it very soft and liquid. The flux of air, must be constant and should not permit the fruit to become liquid, otherwise, the all process will be compromised.

4) Drying can be accomplished artificially or naturally. In some parts of the world, this can be done naturally, but in other parts it can only be done with artificial drying. For example, the wet weather in the Venetian lands does not permit natural drying, while in Armenia it can be done naturally due to the low moisture's content of the air. Drying is very useful because the generous production of the kaki tree can be stored and enjoyed all throughout the year.

When drying is well done, the fruit can last for years. Good luck and good reading.

KAKI

Diospyros kaki is commonly called Japanese persimmon, Chinese persimmon, kaki (from Japanese name). The Venetian most renowned variety is called "ragno" (Venetian for "spider") because, when mature, on its skin it is visible a spider's net.

The kaki fruits are ripe when the leaves have mostly fallen off the tree, typically in October and November.

Some varieties (parthenocarpic) will produce seedless fruit in the absence of pollination but if their flowers are pollinated, they will produce larger fruit riddled with seeds. (Wikipedia)

The spherical to oval fruit can weigh up to 500 grams. Persimmons can tolerate and adapt to a wide range of climates. The wood of kaki tree cracks suddenly and it is very dangerous to climb it or its branches.

Kaki tree is not attacked by pests, it has very deep roots and does not suffer long period of drought, only inconvenient, its fruits will be smaller.

Picture below the famous Venetian cultivar RAGNO.



PERSIMMONS' VARIETIES



There are hundreds of different varieties of kakis. The shape can be oval to spherical. In order to facilitate all process of drying we suggest to use rounded varieties. In years of experiments I have found that the best for its considerable dimensions, shape and sweetness, is the Venetian variety called "ragno". The average weight is from 250 to 500 gr per piece.

Family:	Ebenaceae (eb-en-NAY-see-ee) (Info)
Genus:	Diospyros (dy-oh-SPY-ros) (Info)
Species:	kaki (KAH-kee) (Info)
Cultivar:	Ragno

DRYING: THE VENETIAN WAY

COLLECTING PERSIMMON



There are no particular indications except that the fruit should still be very "undone" not mature. Some also collect them when they are still green.



THE FIRST CUT



Remove the stem and all the hard parts with it.



PEELING



Peel the fruit. If the fruit is not mature this operation will be very easy and fast. Peel the fruit everywhere otherwise when dry, the skin left will be very evident and hard.



SLICING & GRIDDING

Split the peeled fruit into 2 or also 4 pieces, depending on the volume of the pieces you obtain. Small pieces dry faster! By experience, I noticed that halves and quarters are dimensionally ideal when dried. Quarters are very easy to eat.



Put them in a grid. I use stainless steel grids. You can mass them together very tightly. Within 24 hours you will see them becoming smaller and smaller. So you can optimize and use the space created to place other fresh slices.



AIR DRYING ON A GRID



Make sure there is a constant flux of air that will touch omogenously all parts of the grid, so to have a rather similar product all over.



This kind of drying cannot be done naturally, you would loose all the crop. Keep the grid suspended in the air. The best solution, is to have air goig from below through the grid. If you have a source of warm, dried air, use it, do not waste money on a dryer and electricity. Place the grid above a heater or a stove, just carefull not to burn the fruits.



THE FINAL PRODUCT



During the drying you will notice how sticky will the slices become. Kakis are rich in soluble carbohydrates and such carbohydrates during drying transform into fructosium and lactosium.



Day by day your kakis will become very sweet. They are ready when they become gummy, with time and experience it will be easy to recognize them.

PRESERVATION



Due to their sticky nature, I suggest to mix dried kakis with mill. Mill will create a thin veil attached to the superficial sugar of the dried kaki. It will make your life and storage easier.



You can store the kakis in glass jars protected by light and air, possibly in a cool place. In Venice I used to make presents during winter festivities, but also all throughout the year. You can eat them until next crop.

EXPERIMENT & DATAS

Material	weight in gr	%
Peeled kaki	10800	82.8
Stem + hard parts	1050	8.0
Skin	1200	9.2
KAKI (full fruit)	13050	100.0
DRIED FRUIT	2300	17.6

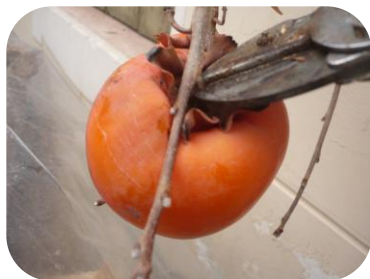
In the picture above, you can see the results of an experiment I did with kakis of cultivar "ragno" of medium diameter of a weight between 200 and 250 grams.

As you see from 13 kg kaki collected, I got in return 2.3 kg dried product, which rapresents around 17% revenue.

It means that you need approximately 6 kg of fruit to obtain 1 kg of dried kakis; for biggest diameters the relationship is 1 to 5. After drying you will see how small is your harvest and you will understand why dried fruit are so expensive!

DRYING: THE ARMENIAN AND CHINESE WAY

COLLECTING



When collecting the kakis, it is very important to leave the stem intact. This for 2 reasons:

- 1) If you hang the kakis you need something to hang it to
- 2) The stem is a sort of vital organ of the fruit, its deprivation speeds decaying processes and will not permit long periods of drying. The fruit should be hard, not mature, in some cases green or light orange.



PEELING

There are different ways to peel the fruit around the stem. I give some pictures and everybody is invited to choose his own method. I suggest to first cut the skin around the stem, and later to peel the fruit. it will be faster.



If the fruit is not mature this operation will be very easy and fast. Peel the fruit everywhere otherwise when dry, the skin left, will be very evident and hard.



DRYING BY HANGING



For hanging, you can use your fantasy.

If you dry naturally by air, separate all fruits. Some suggests to drawn then in boiling water for few seconds. To dry naturally you must have the right environment: a dry climate in autumn and a roof to keep them covered. It will take approximately between 30 and 40 days to dry them.



If the source of drying is very strong and artificial (stove), you can easily hang kaki close to each other so they also slightly touch. When drying they will become smaller and separate. it usually takes between 4 and 7 days, to complete the operation.



DRYING BY GRIDDING



I suggest to turn the kakis up down on the grid, it will keep them "healthier". I never used natural drying in such case, but I think it will work in the right environment.

Make sure there is a constant flux of air that will touch omogenously all parts of the grid, so to have a rather similar product all over.



THE FINAL PRODUCT



You can store the kakis in glass jars protected by light and air, possibly in a cool place. In Venice I used to make presents during winter festivities, but also all throughout the year. You can eat them until next crop.



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DRYING AND THE IMPORTANCE OF AIR CIRCULATION

In the picture below you can see a peeled kaki still standing on the tree! If you have no predators, it will work too during dry cold season. I renovate the concept that air circulation is the key to drying. Avoid wet places, leave space between kaki, mostly if you have not artificial and constant flux of air such as the one produced by fans. Of course if the air is warm, the process will be faster. Hanging has the advantage of exposing the full surface of the fruit to air, while gridding sometimes does not, mostly if the grid is placed on a smoothed surface; in such case, there will be no circulation of air from and within below the fruit. In such last case drying will result difficult and the product might waste or become acid.

I think Japanese Hoshigaki is the ideal product, in which the carbohydrates turn into creamy sugar inside the fruit, like a sweet chocolate candy. To do it, really requires a great care, time and experience. Westerners prefer less sweet taste and usually have not the patience of the asians.



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